

**Amendments to the Specification:**

*Please amend the section starting at page 8 line 30 (just after Equation (1)) and extending onto page 9 to read as follows:*

where R is the viewing radius **R** shown in FIGURE 1,  $W_z$  is the detector-width slat height  $W_z$  shown in FIGURE 2, and a smaller value for the ratio  $R/W_z$  corresponds to increased or better imaging resolution. If, for example, a conformal non-circular detector orbit provides a certain imaging resolution at an average viewing radius of 20 cm, then to move to a constant circular detector orbit with a viewing radius of 30 cm (which is sufficient to admit most human subjects in a prone position) without degrading resolution, the height  $W_z$  of the collimator slats **74** should be increased by a factor of  $(30\text{ cm} \div 20\text{ cm})$  or 1.5 to provide the same resolution at 30 cm fixed-radius orbit as is obtained using a conformal non-circular orbit with an average radius of 20 cm. Rather than increasing the slat height  $W_z$ , the slat separation **G** can instead be decreased to provide the increased collimation at constant radius of 30 cm.